GABRIEL, ROEDER, SMITH & COMPANY
Consultants & Actuaries

One Towne Square, Suite 800, Southfield, Michigan 48076 800-521-0498

To: ETF Board

From: Brian Murphy and Norm Jones, Actuaries

Subject: Fixed Annuity Reserve Dividend Policy

Date: September 27, 2002

Annually, as of December 31, the Actuary performs an actuarial valuation of the liabilities for fixed annuities being paid to retirees. By statute, if the available assets exceed the liabilities by 2% or more, a fixed dividend is granted. Fixed dividends have averaged 6% since 1983, well ahead of price inflation. Dividends have ranged from a low of 2.8% in 1995 to a high of 11.3% in 1990. The Board granted a 3.3% dividend in 2002, based upon December 31, 2001 valuation results.

Based upon the current investment outlook, the ratio of assets to liabilities is likely to be close to 100% in the 2002 retiree valuation; smaller than the 102% that would be required to trigger a fixed dividend. According to staff estimates, a market rate of return of minus 10%, (a possibility not inconsistent with current markets) could result in a ratio of assets to liabilities that is slightly below 100%. A ratio of assets to liabilities that is below 100% for the first time raises the question under what circumstances there should be a rollback of a portion of some prior dividends. A policy is needed for dealing with this eventuality should it occur either in the 2002 valuation or in a future valuation. Our understanding of the policy enunciated at the September Board meeting is that any ratio of assets to liabilities that is below 100% will result in a negative dividend. We have been asked by ETF staff to provide more analysis of the issues for the Board's use if it decides to reconsider this policy. From an actuarial viewpoint we do not believe that a small deficit in the fixed annuity reserve would need to be eliminated immediately as long as there is a mechanism in place to maintain a close balance over the long term. Certainly, small short-term deficits do not impair the system's commitment to sound finance or its ability to pay benefits. Various options for the Board's consideration are described in this memorandum.

Current 2% Limit to Pay Dividend

If the ratio of assets to liabilities is between 100% and 102%, the statutes do not provide for the granting of a dividend. The current average fixed annuity is about $1,800 per month. Two percent of $1,800 would be $36 per month or about $1 per day. Given that half of annuities are probably below average, providing a dividend of less than 2% would result in some small payments. There is no actuarial reason to seek a statutory change to the current 2% limit.

When Ratio of Assets to Liabilities Drops Below 100%

If the ratio of assets is below 100%, the statutes allow the Board to reduce past dividends to a level that restores the ratio to 100% In no event are benefits reduced below their original formula/money purchase or variable opt-out level. The statutes do not set any particular threshold for this situation. Perhaps this was because a ratio below 100% might have been viewed as unlikely at the time the statutes were written, based upon the then current investment policy and outlook. **By extension of the 2% policy for granting dividends, one option for the Board is to establish a 2% downside threshold, to avoid small rollbacks of prior dividends.**

The above two policies taken together would imply that if the ratio of assets to liabilities were anywhere in the range of 98% to 102%, no action would be taken with regard to dividends. A ratio outside that range would generate either a rollback in the 98% case, or a dividend in the 102% case. **Once the upper or lower threshold is hit, the rollback/dividend that is generated would restore the ratio to exactly 100%.**

1% Dividend Threshold

The procedure with regard to granting dividends in the 102% case is statutory, while the rollback procedure would be a Board policy. The Board could seek a statutory change to permit the granting of a smaller dividend. The federal government did this in the 1980s in order to permit a social security increase to be granted when the CPI increase was low. From an actuarial policy standpoint, we find it reasonable (although not absolutely essential) to treat rollbacks and dividends similarly. Should the Board wish to seek a statutory change with regard to the 2% floor on dividends, we would suggest that the floor be set at 1%, and that the Board maintain symmetry between the dividend policy and the rollback policy. A 1% threshold would result in consistency between the fixed and variable programs with respect to the range in which no annuity adjustments were made. **Again, once the upper or lower threshold is hit, the rollback/dividend that is generated would restore the ratio to exactly 100%.**

Other Considerations.

Thresholds, wherever set, should be relatively small. Large thresholds would simply have the effect of delaying the inevitable, and could result in undesirable intergenerational shifts of value between different cohorts of participants.

Computed liabilities are routinely increased by a small amount due to potential data imperfections and for potential future mortality improvements. As of December 31, 2001, these contingency reserves totaled $252.8 million or 1.5% of computed liabilities. While this is not a controlling issue and the reserves were established for other sound reasons, their existence may give some added comfort if a downside threshold is considered.

There is normally a small year-to-year carryover margin in the ratio of assets to liabilities. This occurs because the dividend is not granted for 3 months following the valuation date and dividends are prorated for first year annuitants. In the December 31, 2001 valuation this carryover amounted to 0.4% (.004) of fixed annuity liabilities. If market returns are not as poor as previously feared, this reserve may be enough to avoid a drop in the ratio of assets to liabilities to under 100% as of December 31, 2002. This would be a favorable short-term turn of events. However a policy for the long term would still be needed.

Some Alternatives In our opinion, each option listed below is reasonable from an actuarial standpoint.

1. Establish a 2% downside threshold - consistent with the current upside limitation.

2. Establish a 1% downside threshold and seek legislation to provide symmetry on the upside.

3. Same as (2), except waive the downside threshold in years when contingency reserves are less than 1%.

4. Set the downside threshold at 0% and lower prior dividends any year in which the ratio of assets to liabilities falls below 100%.

Finally, the selected alternative should be reviewed by legal counsel for consistency with statutes before implementing.